Relating Linear Equations and Their Graphs Worksheet

With a partner follow the steps listed below using the equation of a line and graph paper given to you.

Part 1

Step 1: Find four points on your line and write those points below.

Point 1: (,) Point 2: (,) Point 3: (,) Point 4: (,)

Step 2: Find the slope of your line using two points found in Step 1 and write it below.

Step 3: Find other pairs of students in the classroom with the same slope. Once you have found each other raise your hand and your instructor will give you graph paper.

Step 4: Create a coordinate system on your graph paper and graph all lines on the same coordinate system.

Step 5: What conclusions can be made from the graph? Write your conclusions.

Step 6: Solve your equation for y and compare your equation with other pairs of students in your group.

Step 7: What conclusions can be made? Write your conclusions.

Part 2

Now, with your original partner, follow the steps below using the original equation of a line given to you by your instructor.

Step 1: Find the y-intercept of your line and write it as an ordered pair below.

Step 2: Find other pairs of students in the classroom with the same *y*-intercept. Once you have found each other raise your hand and your instructor will give you graph paper.

Step 3: Create a coordinate system on your graph paper and graph all lines on the same coordinate system.

Step 4: Compare your equations from step 6 in part 1 with other pairs of students in your group. What conclusions can be made? Write your conclusions.